

REMARKS

The above referenced application, serial 10/518,138 was filed December 15, 2004 as a National Stage application of PCT/US2003/019112.

At the time of filing, a Preliminary Amendment, copy attached, was provided. As a result of the Preliminary Amendment there are 28 claims pending (24-51) with the following independent claims: 24, 49, 50, and 51.

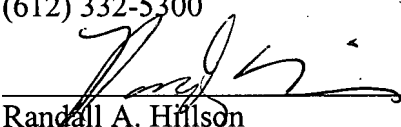
To reduce the number of claims to 25, the PTO has been requested to cancel claims 39, 40 and 41.

In view of the above amendments and remarks, Applicant respectfully requests a Notice of Allowance. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.

Respectfully submitted,

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Date:



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COPY

S/N UNKNOWN

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: FOBE ET AL. Examiner: UNKNOWN
Serial No.: UNKNOWN Group Art Unit: UNKNOWN
Filed: CONCURRENT HEREWITH Docket No.: 758.1303USW1
Title: ARRANGEMENT FOR CONTAINING FILTER CONTAMINANT;
ASSEMBLY; AND, METHODS

CERTIFICATE UNDER 37 CFR 1.10:

"Express Mail" mailing label number: EV495869529US

Date of Deposit: December 15, 2004

I hereby certify that this paper or fee is being deposited with the U.S. Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

By: 

Name: David Ortiz

PRELIMINARY AMENDMENT

Mail Stop PCT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In connection with the above-identified application filed herewith, please enter the following preliminary amendment:

Please insert the **Abstract** page beginning on page 9 into the application as the last page thereof.

Amendments to the claims are reflected in the listing of claims which begins on page 2 of this paper

Remarks begin on page 9 of this paper.

Amendments to the claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-23. (Canceled)

24. (New) A filter cartridge comprising:

- (a) an extension of filter media having an upstream surface and defining an internal volume;
- (b) an liner/valve construction positioned along the upstream surface of the filter media; the liner/valve construction including:
 - (i) a support defining an interior and having at least a first aperture extending therethrough; and,
 - (ii) a flexible valve sheet operably positioned within the interior of the support between the support and the extension of filter media, with an upstream surface of the valve sheet directed toward the support; the flexible valve sheet including at least one deformable valve member oriented adjacent the first aperture, said valve member being deformable between:
 - (A) a first, open, orientation caused by a first opening fluid pressure against the upstream surface of the flexible valve sheet to allow contaminant flow through the liner/valve construction and to the filter media; and

(B) a second, closed, orientation to inhibit loss of contaminant from the filter cartridge; when fluid pressure against the upstream surface of the flexible valve sheet is below the first opening pressure.

25. (New) A filter cartridge according to claim 24 wherein:

(a) the media is pleated and the liner/valve construction is positioned to circumscribe the filter media.

26. (New) A filter cartridge according to claim 25 wherein:

(a) the extension of filter media comprises a cylindrical extension of pleated media;

(b) the support is an outer perforated cylinder; and

(c) the flexible valve sheet comprises a sheet with each deformable valve member comprising a cut valve.

27. (New) A filter cartridge according to claim 26 wherein:

(a) the outer support includes at least 10 apertures therein; and,

(b) the flexible valve sheet includes at least 10 cut valves.

28. (New) A filter cartridge according to claim 27 wherein:

(a) each aperture in the outer support is operably oriented adjacent a cut valve in the flexible valve sheet.

29. (New) A filter cartridge according to claim 24 including:

- (a) first and second opposite end caps;
 - (i) the extension of filter media being permanently secured in extension between the first and second end caps.
- 30. (New) A filter cartridge according to claim 29 wherein:
 - (a) the liner/valve construction is permanently secured in extension between the first and second end caps.
- 31. (New) A filter cartridge according to claim 29 wherein:
 - (a) the liner/valve construction is removeably secured in extension between the first and second end caps.
- 32. (New) A filter cartridge according to claim 31 including:
 - (a) a first o-ring seal between the liner/valve construction and the first end cap; and,
 - (b) a second o-ring seal between the liner/valve construction and the second end cap.
- 33. (New) A filter cartridge according to claim 27 wherein:
 - (a) the outer support includes an internal positioning rib having opposite sides; and,
 - (b) the flexible valve sheet has first and second side edges which are positioned to abut the opposite sides of the positioning rib.

34. (New) A filter cartridge according to claim 33 wherein:
- (a) the positioning rib is a continuous axial rib.
35. (New) A filter cartridge according to claim 34 wherein:
- (a) the opposite sides of the positioning rib are each undercut with an undercut angle of at least 1°.
36. (New) A filter cartridge according to claim 33 wherein:
- (a) each aperture in the outer support is circular and has a radius of at least 1 mm.
37. (New) A filter cartridge according to claim 36 wherein:
- (a) each cut valve is a u-shaped cut.
38. (New) A filter cartridge according to claim 36 wherein:
- (a) each cut valve is a circumferentially directed u-shaped cut.
39. (New) A filter cartridge according to claim 36 wherein:
- (a) each cut valve is a circumferentially directed curved u-shaped cut.
40. (New) A filter cartridge according to claim 36 wherein:
- (a) each cut valve is a circumferentially directed boxed u-shaped cut.

41. (New) A filter cartridge according to claim 36 wherein:
- (a) each cut valve associated with an aperture in the liner is a u-shaped cut having end terminii which define a line substantially tangential to the associated aperture in the liner.
42. (New) A filter cartridge according to claim 36 wherein:
- (a) each cut valve associated with an aperture in the liner is a u-shaped cut having end terminii which define a chord of the associated aperture.
43. (New) A filter cartridge according to claim 36 wherein:
- (a) each cut valve is a slit value.
44. (New) A filter cartridge according to claim 24 wherein:
- (a) each cut valve is a u-shaped cut.
45. (New) A filter cartridge according to claim 44 wherein:
- (a) each u-shaped cut has opposite sides that extend parallel to one another.
46. (New) A filter cartridge according to claim 45 wherein:
- (a) each cut valve associated with an aperture in the liner is a u-shaped cut having end terminii which define a line substantially tangential to the associated aperture in the liner.
47. (New) A filter cartridge according to claim 44 wherein:

- (a) each cut valve has a curved u-shape.
48. (New) A filter cartridge according to claim 47 wherein:
- (a) each aperture in the liner, associated with a cut valve, is circular.
 - (b) each cut valve associated with an aperture in the liner has a curved bottom formed to a circular radius at least 15% larger than a radius of an associated aperture.
49. (New) A method of forming a liner/valve construction for a filter cartridge; said method including steps of:
- (a) curling a flexible valve sheet; and,
 - (b) positioning the flexible valve sheet inside of a porous tubular support.
50. (New) A method according to claim 49 wherein said step of positioning further includes:
- (a) positioning the flexible valve sheet in a tubular support having an axial positioning rib therein, with opposite end edges of the flexible valve sheet abutting the positioning rib.
51. (New) A method of servicing a liquid filter arrangement including a step of:
- (a) removing from the liquid filter arrangement, a filter cartridge according to claim 24 while the filter cartridge includes loaded contaminant positioned between the valve sheet and the filter media.

Remarks

The above preliminary amendment is made to cancel claims 1-23 and add claims 24-51.

A courtesy copy of the present specification is enclosed herewith. However, the World Intellectual Property Office (WIPO) copy should be relied upon if it is already in the U.S. Patent Office.

A new abstract page is supplied to conform to that appearing on the publication page of the WIPO application, but the new Abstract is typed on a separate page as required by U.S. practice.

Applicants respectfully request that the preliminary amendment described herein be entered into the record prior to calculation of the filing fee and prior to examination and consideration of the above-identified application.

If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Applicants' primary attorney-of record, Randall A. Hillson (Reg. No. 31,838), at (612) 336-4707.

Respectfully submitted,



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Dated: Dec 15, 2004

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